

02DO

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OIPE

RAW SEQUENCE LISTING                      DATE: 07/05/2000  
 PATENT APPLICATION: US/09/599,760        TIME: 18:57:37

Input Set : A:\464428\_1.txt  
 Output Set: N:\CRF3\07052000\I599760.raw

ENTERED

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4 <110> APPLICANT: Newell, Martha K.
6 <120> TITLE OF INVENTION: Methods and Products for Manipulating
7   Uncoupling Protein Expression in the Plasma Membrane
10 <130> FILE REFERENCE: I0277/7009
C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/599,760
C--> 12 <141> CURRENT FILING DATE: 2000-06-22
12 <150> PRIOR APPLICATION NUMBER: US 60/140,574
13 <151> PRIOR FILING DATE: 1999-06-23
15 <160> NUMBER OF SEQ ID NOS: 6
17 <170> SOFTWARE: FastSEQ for Windows Version 3.0
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20 <211> LENGTH: 924
21 <212> TYPE: DNA
22 <213> ORGANISM: Homo sapiens
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26 ggaatagcgg cgtgcttgcc ggaagtacac accttcccgc tggacacggc caaagtcagg    120
27 ctccaggtcc aaggtgaatg cccgacgtcc agtggtatta ggtataaagg tgcctgggga    180
28 acaatcaccg ctgtggtaaa aacagaaggc cggatgaaac tctacagcgg gctgcctgcg    240
29 gggcttcagc ggcaaatcag ctccgcctct ctcaggatcg gcctctacga cacgggtccag    300
30 gagttcctca ccgcagggaa agaaacagca cctagttagg gaagcaagat tttagctggg    360
31 ctaacgactg gagagtgccg agtattcatt gggcaaccca cagaggtcgt gaaagtcaga    420
32 ctccaagcac agagccatct ccacggaatc aaacctcgct acacggggac ttataatgcg    480
33 tacagaataa tagcaacaac cgaaggcttg acgggtcttt ggaaaggggac tactcccaat    540
34 ctgatgagaa gtgtcatcat caattgtaca gagctagtaa catatgatct aatgaaggag    600
35 gcctttgtga aaaacaacat attagcagat gacgtccctt gccacttggt gtcgggtctt    660
36 atcgctggat ttgctgcaac agctatgtcc tcccgggtgg atgtagtaaa aaccagattt    720
37 attaatcttc caccaggaca gtacaaaagt gtgcccactt gtgcaatgaa agtggttact    780
38 aacgaaggac caacggcttt cttcaagggg ttggtacctt ccttcttgcg acttggtacc    840
39 tggaaacgtc ttatgtttgt gtgctttgaa caactgaaac gagaactgtc aaagtcaagg    900
40 cagactatgg actgtgccac ataa                                924
42 <210> SEQ ID NO: 2
43 <211> LENGTH: 307
44 <212> TYPE: PRT
45 <213> ORGANISM: Homo sapiens
47 <400> SEQUENCE: 2
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49   1           5           10          15
50 Leu Phe Ser Ala Gly Ile Ala Ala Cys Leu Ala Asp Val Ile Thr Phe
51   20          25          30
52 Pro Leu Asp Thr Ala Lys Val Arg Leu Gln Val Gln Gly Glu Cys Pro
53   35          40          45
54 Thr Ser Ser Val Ile Arg Tyr Lys Gly Val Leu Gly Thr Ile Thr Ala
55   50          55          60
56 Val Val Lys Thr Glu Gly Arg Met Lys Leu Tyr Ser Gly Leu Pro Ala
57   65          70          75          80
58 Gly Leu Gln Arg Gln Ile Ser Ser Ala Ser Leu Arg Ile Gly Leu Tyr

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59		85		90		95
60	Asp Thr Val	Gln Glu Phe Leu Thr	Ala Gly Lys Glu Thr	Ala Pro Ser		
61		100		105		110
62	Leu Gly Ser	Lys Ile Leu Ala Gly	Leu Thr Thr Gly	Gly Val Ala Val		
63		115		120		125
64	Phe Ile Gly	Gln Pro Thr Glu Val	Val Lys Val Arg	Leu Gln Ala Gln		
65		130		135		140
66	Ser His Leu	His Gly Ile Lys Pro	Arg Tyr Thr Gly	Thr Tyr Asn Ala		
67		145		150		155
68	Tyr Arg Ile	Ile Ala Thr Thr Glu	Gly Leu Thr Gly	Leu Trp Lys Gly		
69		165		170		175
70	Thr Thr Pro	Asn Leu Met Arg Ser	Val Ile Ile Asn	Cys Thr Glu Leu		
71		180		185		190
72	Val Thr Tyr	Asp Leu Met Lys Glu	Ala Phe Val Lys	Asn Asn Ile Leu		
73		195		200		205
74	Ala Asp Asp	Val Pro Cys His Leu	Val Ser Ala Leu	Ile Ala Gly Phe		
75		210		215		220
76	Cys Ala Thr	Ala Met Ser Ser Pro	Val Asp Val Lys	Thr Arg Phe		
77		225		230		235
78	Ile Asn Ser	Pro Pro Gly Gln Tyr	Lys Ser Val Pro	Asn Cys Ala Met		
79		245		250		255
80	Lys Val Phe	Thr Asn Glu Gly Pro	Thr Ala Phe Phe	Lys Gly Leu Val		
81		260		265		270
82	Pro Ser Phe	Leu Arg Leu Gly Ser	Trp Asn Val Ile	Met Phe Val Cys		
83		275		280		285
84	Phe Glu Gln	Leu Lys Arg Glu Leu	Ser Lys Ser Arg	Gln Thr Met Asp		
85		290		295		300
86	Cys Ala Thr					
87	305					
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90	<211> LENGTH: 1105					
91	<212> TYPE: DNA					
92	<213> ORGANISM: Homo sapiens					
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96	tcctgggacg	tagcaggaaa	tcagcatcat	ggttgggttc	aaggccacag	atgtgcccc
97	tactgccact	gtgaagtttc	ttggggctgg	cacagctgcc	tgcctgcag	atctcatcac
98	ctttcctctg	gatactgcta	aagtccggtt	acagatccaa	ggagaaagtc	agggggccagt
99	gcgcgctaca	gccagcgccc	agtaccgcgg	tgtgatgggc	accattctga	ccatggtgcg
100	tactgagggc	ccccgaagcc	tctacaatgg	gctgggtgcc	ggcctgcagc	gccaaatgag
101	ctttgccctc	gtccgcatcg	gctgttatga	ttctgtcaaa	cagttctaca	ccaagggctc
102	tgagcatgcc	agcattggga	gccgcctcct	agcaggcagc	accacaggtg	ccctggctgt
103	ggctgtggcc	cagcccaagg	atgtggtaaa	ggtccgattc	caagctcagg	cccgggctgg
104	aggtggctcg	agataccaaa	gcaccgtcaa	tgcttacaag	accattgccc	gagaggaagg
105	gttcggggc	ctctggaaag	ggacctctcc	caatgttgct	cgtaatgcca	ttgtcaactg
106	tgctgagctg	gtgacctatg	acctcatcaa	ggatgccctc	ctgaaagcca	acctcatgac
107	agatgacctc	ccttgccact	tcacttctgc	ctttggggca	ggcttctgca	ccactgtcat
108	cgctccctc	gtagacgtgg	tcaagacgag	atacatgaac	tctgccctgg	gccagtacag
109	tagcgtgccc	cactgtgccc	ttaccatgct	ccagaaggag	gggccccgag	ccttctacaa

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110 aggggttcacg cccctccttc tcgccttggg ttcttggaac gtggtgatgt tcgtcaccta 960
111 tgagcagctg aaacgagccc tcattgctgc ctgcacttcc cgagaggctc ccttctgagc 1020
112 ctctcctgct gctgacctga tcacctctgg ctttgtctct agccgggcca tgctttcctt 1080
113 ttcttccttc tttctcttcc ctcg 1105
115 <210> SEQ ID NO: 4
116 <211> LENGTH: 309
117 <212> TYPE: PRT
118 <213> ORGANISM: Homo sapiens
120 <400> SEQUENCE: 4
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122 1 5 10 15
123 Phe Leu Gly Ala Gly Thr Ala Ala Cys Ile Ala Asp Leu Ile Thr Phe
124 20 25 30
125 Pro Leu Asp Thr Ala Lys Val Arg Leu Gln Ile Gln Gly Glu Ser Gln
126 35 40 45
127 Gly Pro Val Arg Ala Thr Ala Ser Ala Gln Tyr Arg Gly Val Met Gly
128 50 55 60
129 Thr Ile Leu Thr Met Val Arg Thr Glu Gly Pro Arg Ser Leu Tyr Asn
130 65 70 75 80
131 Gly Leu Val Ala Gly Leu Gln Arg Gln Met Ser Phe Ala Ser Val Arg
132 85 90 95
133 Ile Gly Leu Tyr Asp Ser Val Lys Gln Phe Tyr Thr Lys Gly Ser Glu
134 100 105 110
135 His Ala Ser Ile Gly Ser Arg Leu Leu Ala Gly Ser Thr Thr Gly Ala
136 115 120 125
137 Leu Ala Val Ala Val Ala Gln Pro Thr Asp Val Val Lys Val Arg Phe
138 130 135 140
139 Gln Ala Gln Ala Arg Ala Gly Gly Arg Arg Tyr Gln Ser Thr Val
140 145 150 155 160
141 Asn Ala Tyr Lys Thr Ile Ala Arg Glu Glu Gly Phe Arg Gly Leu Trp
142 165 170 175
143 Lys Gly Thr Ser Pro Asn Val Ala Arg Asn Ala Ile Val Asn Cys Ala
144 180 185 190
145 Glu Leu Val Thr Tyr Asp Leu Ile Lys Asp Ala Leu Leu Lys Ala Asn
146 195 200 205
147 Leu Met Thr Asp Asp Leu Pro Cys His Phe Thr Ser Ala Phe Gly Ala
148 210 215 220
149 Gly Phe Cys Thr Thr Val Ile Ala Ser Pro Val Asp Val Val Lys Thr
150 225 230 235 240
151 Arg Tyr Met Asn Ser Ala Leu Gly Gln Tyr Ser Ser Ala Gly His Cys
152 245 250 255
153 Ala Leu Thr Met Leu Gln Lys Glu Gly Pro Arg Ala Phe Tyr Lys Gly
154 260 265 270
155 Phe Met Pro Ser Phe Leu Arg Leu Gly Ser Trp Asn Val Val Met Phe
156 275 280 285
157 Val Thr Tyr Glu Gln Leu Lys Arg Ala Leu Met Ala Ala Cys Thr Ser
158 290 295 300
159 Arg Glu Ala Pro Phe
160 305

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162 <210> SEQ ID NO: 5
163 <211> LENGTH: 1132
164 <212> TYPE: DNA
165 <213> ORGANISM: Homo sapiens
167 <400> SEQUENCE: 5
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169 ccaccgctgc actgaagccc agggctgtgg agcagcctct ctccctggac ctccctctcg 120
170 ccctaaaggg actgggcaga gccttccagg actatggttg gactgaagcc ttcagacgtg 180
171 cctcccacca tggctgtgaa gttcctgggg gcaggcacag cagcctgttt tctgacctc 240
172 gttacctttc cactggacac agccaaggtc cgctgcaga tccaggggga gaaccaggcg 300
173 gtccagacgg ccgggctcgt gcagtaccgt ggcgtgctgg gcaccatcct gaccatggtg 360
174 cggactgagg gtccctgcag cccctacaat gggctggtgg ccggcctgca gcgccagatg 420
175 agcttcgctt ccatcgcgat cggcctctat gactccgtca agcagggtga cacccecaaa 480
176 ggcgcgga caactccagc cactaccggt attttgccg gctgcaccac aggagccatg 540
177 gcggtgacct gtgcccagcc cacagatgtg gtgaaggctc gatttcaggc cagcatacac 600
178 ctccggccat ccaggagcga cagaaaatac agcgggacta tggacgccta cagaaccatc 660
179 gccagggagg aaggagtcag gggcctgtgg aaaggaactt tgcccaacat catgaggaat 720
180 gctatcgctc actgtgctga ggtggtgacc tacgacatcc tcaaggagaa gctgctggac 780
181 taccacctgc tcaactgaaa ctccctctgc cactttgtct ctgccttttg agccggcttc 840
182 tgtgccacag tgggtggcct cccggtggac gtggtgaaga cccggtatat gaactcacct 900
183 ccaggccagt acttcagccc cctcgactgt atgataaaga tgggtggcca ggaggggccc 960
184 acagccttct acaaggggtg agcctcctcc tgccctccag actcctccc agagaacagg 1020
185 ggcttctttc ttttcgaatg tggctaccgt gggccaacct gggatgtagc ggtgaagagt 1080
186 acagatgtaa atgccacaaa gaagaagttt aaaaaacat gcaaaaaaaa aa 1132
188 <210> SEQ ID NO: 6
189 <211> LENGTH: 275
190 <212> TYPE: PRT
191 <213> ORGANISM: Homo sapiens
193 <400> SEQUENCE: 6
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196 Phe Leu Gly Ala Gly Thr Ala Ala Cys Phe Ala Asp Leu Val Thr Phe
197 20 25 30
198 Pro Leu Asp Thr Ala Lys Val Arg Leu Gln Ile Gln Gly Glu Asn Gln
199 35 40 45
200 Ala Val Gln Thr Ala Arg Leu Val Gln Tyr Arg Gly Val Leu Gly Thr
201 50 55 60
202 Ile Leu Thr Met Val Arg Thr Glu Gly Pro Cys Ser Pro Tyr Asn Gly
203 65 70 75 80
204 Leu Val Ala Gly Leu Gln Arg Gln Met Ser Phe Ala Ser Ile Arg Ile
205 85 90 95
206 Gly Leu Tyr Asp Ser Val Lys Gln Val Tyr Thr Pro Lys Gly Ala Asp
207 100 105 110
208 Asn Ser Ser Leu Thr Thr Arg Ile Leu Ala Gly Cys Thr Thr Gly Ala
209 115 120 125
210 Met Ala Val Thr Cys Ala Gln Pro Thr Asp Val Val Lys Val Arg Phe
211 130 135 140
212 Gln Ala Ser Ile His Leu Gly Pro Ser Arg Ser Asp Arg Lys Tyr Ser
213 145 150 155 160

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214 Gly Thr Met Asp Ala Tyr Arg Thr Ile Ala Arg Glu Glu Gly Val Arg
215                               165                               170                               175
216 Gly Leu Trp Lys Gly Thr Leu Pro Asn Ile Met Arg Asn Ala Ile Val
217                               180                               185                               190
218 Asn Cys Ala Glu Val Val Thr Tyr Asp Ile Leu Lys Glu Lys Leu Leu
219                               195                               200                               205
220 Asp Tyr His Leu Leu Thr Asp Asn Phe Pro Cys His Phe Val Ser Ala
221                               210                               215                               220
222 Phe Gly Ala Gly Phe Cys Ala Thr Val Val Ala Ser Pro Val Asp Val
223 225                               230                               235                               240
224 Val Lys Thr Arg Tyr Met Asn Ser Pro Pro Gly Gln Tyr Phe Ser Pro
225                               245                               250                               255
226 Leu Asp Cys Met Ile Lys Met Val Ala Gln Glu Gly Pro Thr Ala Phe
227                               260                               265                               270
228 Tyr Lys Gly
229                               275

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VERIFICATION SUMMARY

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Input Set : A:\464428\_1.txt

Output Set: N:\CRF3\07052000\I599760.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No  
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date